Public Works (1911) Department.

G.O., No. 378-79 I.

DATED 24-11-1911.

P-9

(11)

The Notes
in this G.O. have been printed.

[Despatch Abstract.]

Famine Relief Programme of the South Arcot Dt

Ordered that a letter be sent to the French Govt in India ~~be informed~~ ~~stating~~ that it is proposed to investigate certain irrigation projects in connection with the — and requesting to be furnished with information as to what quantity of water is available for impounding in the British territory without affecting the interests of the existing French irrigation.

Letter to H.E. the Governor of the French Settlements in India, Pondichery.

Indexed. [illegible]

P. W. S.
[illegible]—27-7-11.

M.S.
25/11/11

செப்பனிடுபவர் பெயர்

க. [signature]

செப்பனிடுவதற்காக எடுத்துக் கொள்ளப்பட்ட நாள் 12/89

செப்பனிட்டு முடித்த நாள்

சரிபார்க்கும் மு.நி.பத.எ. கையொப்பம்	ஆராய்ச்சி உதவியாளர் கையொப்பம்

2/378

Government of Madras.

PUBLIC WORKS DEPARTMENT.

IRRIGATION.

Recd.	1911.	*Enclosures*	
Regd.		*Spare copies*	

G.O. No. 378 I., 24th November 1911.

Gidangal, Sevur and Reddikuppam projects in the South Arcot District

Ordered that a letter be sent to the French Government in India stating that it is proposed to investigate the — and requesting to be furnished with information as to what quantity of water is available for impounding in the British territory without affecting the interests of the existing French irrigation.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following papers :—

I

Letter—from S. D. PEARS, Esq., Superintending Engineer, V Circle.
To—the Chief Engineer for Irrigation.
Dated—Madras, the 26th June 1911.
No.—299 E.I.

In continuation of this office No. 184-G., dated 8th February 1911, I have the honour to report that there are complete plans and estimates (which however require bringing up to date) for Gidangal project, and a portfolio of plans dated 1897 of Sevur project with some levels taken in 1908.

There is however no idea of how much water, if any, can be spared for either scheme.

The Executive Engineer estimates the cost of making observations and calculations over a period of three years at something under Rs. 1,000, but in view of the fact that the French have an anicut lower down the same river supplying their Ossuteri tank, he does not recommend any expenditure of time or money on ascertaining the quantity of water available till the attitude of the French has been precisely ascertained. I agree with him, and would suggest that Government should address the Pondicherry Government in the matter.

The area irrigated by Ossuteri tank is not discoverable in this or the South Arcot Division office, but it is believed to be large.

All that it is necessary to do at the present stage is to inform the French that we propose to investigate three projects (for there is a third known as Reddikuppam project) on the Gingee river, but before doing, so we should be obliged by their informing us whether they would have any objection to our abstracting any part of the discharge of the upper Gingee river for the projects in question should they prove, on further investigation, to be otherwise desirable, and subject to suitable safeguards such as, for instance, that no water should be drawn off except when Ossuteri tank is full or its anicut discharging.

II

Memorandum R.O.C. No. 1781/11, dated 17th July 1911.

With reference to letter No. 299 E.I., dated 26th June 1911, from the Superintending Engineer, V Circle, the Chief Engineer for Irrigation has the honour to request the Superintending Engineer to be so good as to submit to this office as early as possible a sketch-map showing the positions of the three projects as well as the anicut and tank in the French limits therein referred to, together with a brief description of the projects.

(By Order.)

J. M. LACEY,
Asst. Chief Engineer for Irrigation.

To the Superintending Engineer, V Circle.

III

Letter—from S. D. Peaks, Esq., Superintending Engineer, V Circle.
To—the Chief Engineer for Irrigation.
Dated—Madras, the 11th September 1911.
No.—33 E.I.

(1) Gidangal. (2) Mel-Sevur. (3) Reddikuppam.

With reference to your R.O.C. No. 1781/11, dated 17th July 1911, I have the honour to forward herewith a sketch-map showing the positions of the three marginally-noted projects in South Arcot division, together with a short note for each, and your note, dated 31st January 1907, as Superintending Engineer, V Circle, on the Gidangal project.

Enclosures.

(i)

Report on the Gidangal Project, Tindivanam Taluk.

The project consists in digging a supply channel to Gidangal tank and all the tanks which depend on it from the Gingee and the Tondiar rivers.

The Rettanai anicut built across the Gingee river will be utilized; at present a channel starts from this anicut to feed Rettanai tank to irrigate lands in that village. The channel will be widened, then diverted at a high level through the water-shed which separates the Gingee and Tondiar rivers, until it falls into the Tondiar, half a mile above Alagramam anicut. From the left of Alagramam anicut a channel takes off to the tank of the same name; a head sluice will be built for Alagramam channel and for Gidangal channel. The latter channel will pass in the foreshore of Alagramam tank, of Peramandur Sitheri and of Peramandur large tank and of Muthiyur, Vempundi tanks, and finally fall into Gidangal tank, feeding on the way Singanur tank.

2. The country through which the channel will pass is a ground nut country with sandy soil at the surface and red gravel and rock below the surface. The investigation already made does not show the sub-soil sufficiently in detail to enable an estimate to be made.

3. The investigations already made do not show the quantity of water which is available; water readings and gaugings are not available at any of our anicuts, although they might be available at the French anicuts of Ossuteri which is believed to be the last on the Gingee river.

4. There are said to be five anicuts across Gingee river above Rettanai anicut and two below. There are, it is believed, three anicuts across the Tondiar below Alagramam anicut as far as its junction with the Gingee river below Veedur anicut. There are about a dozen anicuts across the Tondiar above Alagramam anicut.

5. *State of progress of investigation of the project.*—A tracing of the village maps of the villages in which the channel will pass has been made, a line of levels has been taken along it, with 78 cross-sections. All the masonry works have been designed. A note from Mr. H. E. Clerk on the project is enclosed.

6. *Cost of the project.*—A detailed estimate has been made in 1906 of the project; its total cost comes to Rs. 37,500. The rates provided seem to be workable although in the case of the channel it is probable that much more than Rs. 6 a unit would have to be paid for the harder soils. The allowance for buying land seems to be low.

R. deChazal,
Executive Engineer, South Arcot Division.

17th May 1911.

(ii)

Note by the Superintending Engineer.

The Gidangal project papers are returned with the following remarks.

The estimate of quantity of water available based as it is on maximum flood discharges is valueless. As the whole project turns on this, it must be carefully considered afresh.

The way of doing this is as follows: The rainfall being 41 inches, we may take the run-off as one-fifth or say 8 inches.

Total run-off at anicut = 2·32 × 8 × 420 = 7,795 mills. cubit feet; from this has to be deducted the water required for existing cultivation dependent on the two rivers at 216,000 cubic feet per acre or at such quantity as local conditions may require.

Next we have to make an estimate of the efficiency of the estimate, *i.e.*, what proportion of the total reaching the anicut can be drawn off from the head sluice. This depends largely on the number of days river is in flood. It also depends on height of anicut and width of head sluice as compared with length of anicut. The anicut at Tirukkóyilúr for which registers are available should give some assistance in this respect.

Supposing these questions are satisfactorily settled, it remains to show that the tanks are capable of holding the supply it is proposed to give them and to decide what proportion they should have.

Each tank may be assumed to be capable of irrigating 60 acres from its own catchment. This is rather a low figure, but it is well to take a year rather below the normal. The balance of water required to irrigate the whole increased ayacut has to be given from the river.

Size of channels—

If X = required discharge in cusecs per acre,
N = Number of days on which full supply is available.
$X = 216{,}000/86{,}400 \times N.$

Financial aspect.—There is no one thinking of this work as a famine protection work. It might possibly be sanctioned as a famine relief work. In such case everything must be designed to provide as much earthwork as possible and in masonry works concrete should be used instead of masonry as far as possible.

H. E. CLERK,
Superintending Engineer.

31st January 1907.

(iii)

Note on the Reddikuppam Project.

Object of the project.—The object of the project is to supply Salai-Vikkravandi and Avadiyurpet tanks and to irrigate directly between 200 to 400 acres below these two tanks, as well as in Reddikuppam village, which lies between Avadiyurpet tank and Gingee river. These villages are all in Villupuram taluk. A channel would start from an existing anicut across Gingee river from which a channel starts and irrigates directly the lands of Peranai village close to the Pernai station of the South Indian Railway.

History.—The papers which are available show that the project was investigated in 1869; then Mr. R. E. Norfor took it up; there is some correspondence about it until the year 1873; it was set aside during the great famine until after the Afghan War of 1879. It was taken up again in 1882. In 1890 and 1892 during the tenure of office of Colonel Smart, R.E., and of Mr. J. P. Davidson, it was again mentioned; it was not re-investigated as late as 1896. In 1906 Mr. R. A. Srinivasa Aiyangar posted an overseer to take levels for the channel. Sufficient levels were not taken and the area to be irrigated was not located.

Existing state of investigation.—The levels have been taken and checked and a portion of the land available for irrigation has been located and designs have been prepared for the works required; they are not complete.

Quantity of water available.—There are no records of any measurements or gauge readings at Peranai anicut or anywhere on the Gingee river and it is impossible at present to say how much land can be irrigated. There is no doubt that there is plenty of water available, for the next anicut on Gingee river, 15 miles below Peranai anicut, feeds the large tank of Ossuteri in French territory. If the work is carried out, some arrangement will have to be made with the French Government regarding the quantity of water which can be taken and the dates on which it can be taken.

Nature of the country to be irrigated.—There are already patches of wet lands under Peranai tank and below the tanks mentioned above. The soil is sandy red soil and is very good for ground nut.

Cost and financial aspect.—Nothing is known about these.

R. DECHAZAL,
Executive Engineer, South Arcot Division.

22nd August 1911.

(iv)

Report on the Sevur Project.

General.—Gingee river, at the spot where it is proposed to start the Sevur channel, has a catchment of 325 square miles. By means of an anicut it feeds Mogaiyur tank. There is a large quantity of water available at this point, if only storage was available. The Sevur project proposes to take some of this water; from Mogaiyur tank a new channel will take off to Kalladikuppam, Kil-Vailamur and Nagandur tank, feeding Kilanjur, Kalleri, Mel-Sevur and Marur tanks on the way. The channel will pass principally through reserved jungle in more or less rocky soil.

Present stage which the investigation has reached.—There is, in the Division office, a large portfolio of plans dating from 1897; it has a few pencil notes from Mr. C. A. Smith, now Chief Engineer. The estimates have not yet been found.

In 1908 Sub-overseer T. R. Swaminatha Aiyar took levels along the proposed channels. They are countersigned by Mr. C. J. W. Plummer, who, however, cannot give any useful information on the line chosen. No calculations, estimates nor detailed drawings of any sort have been made. It is not on record that the line has been inspected by any Executive Engineer.

Quantity of water available.—Although it is certain that there is sufficient water available to supplement the tanks mentioned above, yet no scientific observations of the discharge of the river seem to have been made The anicuts which are on the Gingee river lower down are mostly for direct irrigation with the exception of Alagramam anicut which feeds the tank of the same name. The French have an anicut on this river which feeds Ossuteri tank. There are no records in the Division office of the area which that tank irrigates, but it is believed that it is large.

R. DECHAZAL,
17*th June* 1911. *Executive Engineer, South Arcot Division.*

IV

Endorsement by the Chief Engineer for Irrigation, R.O.C. No. 1781/11, dated 3rd October 1911.

Submitted to Government.

H. E. CLERK,
Chief Engineer for Irrigation.

Order—No. 378 I., dated 24th November 1911.

The following letter will be sent.

[Here enter Letter No. 379 I., dated 24th November 1911.]

(True Extract.)

H. E. CLERK,
Joint Secretary to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation,
,, Superintending Engineer, VII Circle,
,, Revenue Department,
,, Political ,,
} with copy of letter.

Forwarded to the

(By Order.)

Deputy Registrar.

6

378

No. 379 I.

To

His Excellency the GOVERNOR of the
FRENCH SETTLEMENTS in INDIA,
Pondicherry.

Your Excellency,

I have the honour to inform your Excellency that it is proposed by this Government to investigate the marginally-noted three projects in the South Arcot district shown in the accompanying sketch-map. It will be seen that the projects consist in excavating supply channels from the Gingee and Tondiar rivers to supplement the supply to existing tanks. I shall be obliged if your Excellency's Government will favour me with any available information showing the quantity of water which may be impounded in the British territory without affecting the interests of the existing French irrigation.

1. Gidangal project.
2. Sevur project.
3. Reddikuppam project.

Be pleased to accept the assurance of the high consideration with which

I have the honour to be,
Your Excellency's most obedient servant,
T. D. GIBSON-CARMICHAEL.

Fort St. George,
24th November 1911.

Document accompanying—
One Sketch-map.

7

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PUBLIC WORKS DEPARTMENT
(IRRIGATION BRANCH).

NOTES CONNECTED WITH G.O. No. 378 I., DATED 24TH NOVEMBER 1911.

[SUBJECT.—*Gidangal, Sevur and Reddikuppam Projects, South Arcot district.*]

From the Superintending Engineer, V Circle, No. 299-E.I., dated 26th June 1911.

Under Secretary—

While reviewing the famine-relief programme of the South Arcot district for 1910–1911, the Superintending Engineer, V Circle, was requested to report in what stage the investigation of the following works among others, included in the programme, was—

(1) Reddikuppam project, Villupuram taluk.
(2) Sevur project, Tindivanam taluk.
(3) Gidangal project, Tindivanam taluk.

In his letter No. 184 G*., dated 8th February 1911, the Superintending Engineer stated that item (1) was inspected in December last by the Executive Engineer who promised to submit a report, that levels had been taken for item (2) and a report had been called for from the Executive Engineer and that as regards (3) a report was promised by the Executive Engineer.

* In Dis. No. 745/10, dated 4th May 1911.

2. In his letter quoted above the Superintending Engineer reports that complete plans and estimates have already been prepared for item (3) Gidangal project (which require, however, bringing up to date), and that for item (2), some plans were prepared in 1897, and levels taken in 1908. As there is no information as to the amount of water available, the Executive Engineer proposes to make observations for three years, but before this is done, he suggests, and the Superintending Engineer agrees with him, that as the French Government possess an anicut lower down the river supplying the Ossuteri tank in their territory, their views should be obtained as to whether they would have any objection to our abstracting any part of the discharge of the upper portion of the river for the above three projects, subject to such suitable conditions as will safeguard their interests.

For orders if the French Government may be addressed in the matter.

G.V.—30-6-11.

G.A.C.—1-7-11.

Please put up a map showing the position of these projects and the position of the French anicut. If there is no information in this office, please ask the Superintending Engineer, V Circle, to send a sketch map showing the position of these projects and to give a brief description of each.

J. M. LACEY—5-7-11.

Under Secretary—

No map showing the positions of the three projects as well as the anicut and tank in the French limits referred to in Superintending Engineer's letter is available in this office. A draft to Superintending Engineer is put up for approval.

M.V.—10-7-11.

Issue.

J.M.L.—13-7-11.

[Issued as R.O.C. No. 1781/11, dated 17th July 1911.]

From the Superintending Engineer, V Circle, No. 33 E.I., dated 11th September 1911.

Joint Secretray—

The sketch map sent in, is not complete as it does not show the position of the French anicut and tank, as asked for in this office R.O.C. No. 1781/11, dated 17th July 1911. In all these projects the question of water-supply available appears to be the most important thing to be settled before proceeding any further and so the proposal of the Superintending Engineer to inform the French Government of our intention to investigate the three projects on the Gingee river having for their object the storing of the flood waters of the Upper Ginjee river, without prejudicing the irrigation in the French territory, may be approved.

N.S.—13-9-11.

Put up draft to French Government saying that we propose to investigate the three projects shown in the accompanying sketch map and that we shall be obliged if they will favour us with any information available showing what water is available for impounding in British Territory without affecting the interests of existing French irrigation.

H. E. Clerk—26-9-11.

Under Secretary—

A draft order and letter to His Excellency the Governor of French Settlements in India are submitted, which, if approved, may be forwarded to Revenue and Political for acceptance before circulation to His Excellency the Governor.

M.S.—29-9 11.
B.G.R.—29-9-11.

Joint Secretary—

Submitted, with endorsement below.

H. L. Nicholson—3-10-11.

I do not think that the French Government will be able to give us any information, and they will probably object to the scheme being carried out and very reasonably.

As far as this Government are concerned, I believe them to be of slight utility.

H.E.C.—3-10-11.

To the Revenue Department } *u.o.*
„ *Political* „

Revenue Department.

Under Secretary—

The draft may, it is submitted, be accepted in this department.

B.M.R.—7-10-11.
M.R.N.—10-10-11.

Yes.

J. T. Gwynn—14-10-11.

To the Public Works Department (Irrigation) u.o.

Public Works Department
(Irrigation Branch).

Under Secretary—

The file may now be sent to the Political department for acceptance of the draft letter.

G.V.—19-10-11.
G.A.C.—19-10-11.

H.L.N—24-10-11.

To the Political Department u.o.

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POLITICAL DEPARTMENT.

The draft letter may be accepted in Political and the file returned to Public Works Department.

W.B.S.—27-10-11.

S. H. SLATER—28-10-11.

To the Public Works Department u.o.

PUBLIC WORKS DEPARTMENT
(IRRIGATION BRANCH).

Under Secretary—

Submitted that the draft letter may now be circulated to His Excellency the Governor.

G.V.—31-10-11.
G.A.C.—31-10-11.

Joint Secretary—

Submitted.

H.L.N.—2-11-11.

Submitted to His Excellency the Governor.

It is proposed in connection with the famine-relief programme of the South Arcot district to investigate certain irrigation projects which would, if carried out, affect the interests of the French Government who have irrigation works lower down the streams it is proposed to tap.

The accompanying draft letter asks for information as to the amount of water they can spare. The reply will probably be that they cannot spare any in which case there is very little chance of our projects being carried out. They are, however, not promising ones even putting French interests out of the question.

H.E.C.—8-11-11.

T. D. G[IBSON-CARMICHAEL]—11-11-11.

Under Secretary—

The draft order and letter may now be marked for issue.

G.V.—13-11-11.
G.A.C.—13-11-11.

H.L.N.—16-11-11.

Issue.

H.E.C.—17-11-11.

[Issued as G.O. No. 378 I., dated 24th November 1911.]

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From the S. E. V circle, No 2993 & 8.26/11

To —— do —— Roc No 1781/11 & 17/11

From —— do —— No 3322 & 11 9/11

CURRENT No. 13514
PASSED ON BY 3/20/11
R. C.
U. R. C
REF.
R. K.
D. O.

Roc No 1781/11 B

Endt of the Ch: Engr. for Drwgs

Submitted to Government

AUN.
3/10/11

D.E.S. E.S.

13

11 9/378

Public Works Department.
Irrigation Branch.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

From the Supg: Engr. V circle, No. 299 E.I. d 26.6.11
To — do — Roc No. 1781/11 d 17.7.11
From — do — No. 33 E.I. d 11.9.11
Endt. of the Chief Engr. for Irrign. Roc. No. 1781/11 d

Print Note
9 P

Order No. 378-I D/24-11-1911

The following letter will be sent —

No. 379-I dated 24-11-1911

To

His Excellency the Governor of the French Settlement in India
Pondicherry.

Your Excellency,

I have the honour to inform your Excellency that it is proposed by this Govt. to investigate the marginally noted 3 projects in the South Arcot Dt. shown in the

1. Sidangal Project
2. Seeur Project
3. Reddikuppan Project

To the Ch: Engr. for Irrign.
" S.E. VII circle
" Revenue Dept.
" Political Dept.
m/s with copy of letter

Issue in m/s to 58 VII m 24.11.11

12.1.12
Ac 16.1.12

Letter to the French Govt to issue m/s

13/11/11

378 I

12

10/378 10.

It will be seen that the projects consist in excavating supply channels from the Gingee and Chunnambar Rivers to supplement the supply to existing Tanks.

the accompanying sketch map. ~~and~~ I shall be obliged if your Excellency's Govt. will favour me with any available information showing the quantity of water which may be impounded (~~available for impounding~~) in the British territory without affecting the interests of the existing French irrigation.

Be pleased to accept &c

H.L.N.
3.10.11

D.S.

H.L.
3/10/11

S.

Documents accompanying

One sketch map.

Despatched 24.11.11.

378

29.9.11

29/11

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Ex 20-11-11